CLAIMS

1. A beverage preparation machine (1) comprising:

- a fluid circulation system for a fluid substance, said fluid circulation system comprising at least one fluid source (2), at least one fluid pump (3) and at least one fluid circulation conduit (6);
- at least one container holder (7) adapted for receiving a corresponding container (C); and
- at least one fluid processing device (10) which is part of the fluid circulation system and which comprises a fluid processing body (12) comprising in turn at least one inlet means (18) for introducing said fluid substance into said container (C) for the preparation of a beverage product by mixing of said fluid substance with an ingredient contained in said container (C),

said beverage preparation machine (1) being **characterized in that** said fluid processing body (12) further comprises at least one outlet means (20) for dispensing said beverage product from said container (C), wherein at least one movement means (54; 64) is provided for separately moving said at least one fluid processing device (10) and said container (C) relatively one to another between:

- a fluid introduction position, wherein said fluid processing body (12) protrudes inside the internal volume of said container (C) for introducing therein said fluid substance, and
- a beverage dispensing position, wherein said fluid processing body (12) is at least partially withdrawn from the internal volume of said container (C) to allow dispensing of said beverage product from said container (C) trough said at least one outlet means (20).

2. The beverage preparation machine (1) according to claim 1, characterized in that said fluid processing body (12) is a needle-shaped fluid processing body (12), comprising at least one end portion (26; 28) configured for perforating, piercing and/or tearing a specific portion or wall of said container (C) before the introduction of said fluid substance into said container (C).

3. The beverage preparation machine (1) according to claim 1 or 2, characterized in that said fluid processing body (12) further comprises at least one sealing means (22) which, in said fluid introduction position, is engaged with said container (C) to block dispensing of said beverage product from said container (C) and, in said beverage dispensing position, is not engaged with said container (C) to allow dispensing of said beverage product from said container (C).

4. The beverage preparation machine (1) according to any claims 1 to 3, characterized in that said fluid processing body (12) further comprises:

- an inlet portion (14), wherein said at least one inlet means (18) for introducing said fluid substance into said container (C) are provided at said inlet portion (14);
- an outlet portion (16), wherein said at least one outlet means (20) for dispensing said beverage product from said container (C) are provided at said outlet portion (16);
- a first end portion (26) provided at said inlet portion (14), said first end portion (26) being configured for opening a portion of said container (C);
- a second end portion (28) provided at said outlet portion (16), said second end portion (28) being configured for dispensing said beverage product; and
- at least one inlet conduit (30) arranged within said fluid processing body (12), said at least one inlet conduit (30) being in fluid communication with said first end portion (26) and with a second inlet conduit (36) of said fluid processing device (10),

wherein said at least one inlet means (18) and said at least one outlet means (20) are separate one to another, wherein said at least one inlet means (18) comprises said at least one inlet conduit (30) and said first end portion (26), and wherein said at least one outlet means (20) comprises at least said second end portion (28).

5. The beverage preparation machine (1) according to claim 4, characterized in that said at least one outlet means (20) comprises at least one outlet conduit (32) which is distinct from said at least one inlet conduit (30), which is provided on the outer surface of said fluid processing body (12) and which is in fluid communication with said second end portion (28).

6. The beverage preparation machine (1) according to claim 4 or 5, characterized in that said fluid processing device (10) further comprises at least one air or gas inlet bore (24) which is in fluid communication with said at least one inlet means (18), wherein said at least one movement means (54; 64) is further configured for separately moving said at least one fluid processing device (10) and said container (C) relatively one to another in at least one of the following positions:

- a first intermediate position, wherein said at least one air or gas inlet bore (24) is located outside the internal volume of said container (C) and said at least one sealing means (22) is not engaged with said container (C), and
- a second intermediate position, wherein said at least one air or gas inlet bore (24) is located inside the internal volume of said container (C) and said at least one sealing means (22) is still not engaged with said container (C).

7. The beverage preparation machine (1) according to any claims 1 to 6, characterized in that it comprises first locking means (52) for selectively locking/unlocking said container (C) with respect to said at least one container holder (7) when said container (C) is received into said at least one container holder (7), whereas said at least one container holder (7) is fixed with respect to said at least one fluid processing device (10), and wherein said at least one movement means (54; 64) comprises first actuation means (54) for moving said at least one fluid processing device (10) with respect to said container (C) between at least said fluid introduction position and said beverage dispensing position and vice versa.

8. The beverage preparation machine (1) according to claim 7, characterized in that said first locking means (52) comprise a first gear and/or leverage mechanism (56) which is movable with respect to a fixed portion of the beverage preparation machine (1) and which is provided with at least one tooth (58) selectively engageable with at least one corresponding hole (60) provided in said container (C), wherein said container (C) is detachable from said at least one container holder (7), and thus from the beverage preparation machine (1), in the

non-engaged position of said at least one tooth (58) with respect to said at least one corresponding hole (60).

9. The beverage preparation machine (1) according to claim 7 or 8, characterized in that said first actuation means (54) comprise a second gear and/or leverage mechanism (62) connected to said at least one fluid processing device (10), wherein said second gear and/or leverage mechanism (62) is configured for moving said at least one fluid processing device (10) with respect to said container (C) along a vertical axis (A).

10. The beverage preparation machine (1) according to any claims 1 to 6, characterized in that said at least one movement means (54; 64) comprises second actuation means (64) for moving said container (C) with respect to said at least one fluid processing device (10) between said fluid introduction position and said beverage dispensing position and vice versa, whereas said at least one fluid processing device (10) is fixed with respect to said at least one container holder (7).

11. The beverage preparation machine (1) according to claim 10, characterized in that said second actuation means (64) comprise a container support device (66) and a third gear and/or leverage mechanism (68), said container support device (66) being actuated by said third gear and/or leverage mechanism (68) for moving said container (C) with respect to said at least one container holder (7) and with respect to said at least one fluid processing device (10) along a vertical axis (A).

12. The beverage preparation machine (1) according to claim 11, characterized in that said container support device (66) is provided with second locking means (72) comprising at least one pin (70) selectively engageable with at least one corresponding hole (60) provided in said container (C), wherein said container (C) is detachable from said at least one container holder (7), and thus from the beverage preparation machine (1), in the non-engaged position of said at least one pin (70) with respect to said at least one corresponding hole (60).

13. The beverage preparation machine (1) according to any claims 1 to 12, characterized in that, in said beverage dispensing position, said fluid substance is

simultaneously introduced into said container (C) by said fluid processing body (12) when said beverage product is dispensed from said container (C).

14. A system comprising the beverage preparation machine (1) and said container (C) according to any claims 1 to 12, characterized in that said container (C) is manufactured from a flexible material and is internally provided, at the portion thereof that is engaged by said at least one fluid processing device (10), with an additional layer (L) of a substantially rigid material.

15. The system according to claim 14, characterized in that said substantially rigid layer (L) is provided, at the portion of said container (C) that is engaged by said at least one fluid processing device (10), with a hole having a cross-sectional shape that is compatible with the cross-sectional shape of said fluid processing body (12), wherein said hole is closed by a predefined portion of the flexible material of said container (C) in the non-operative condition of said at least one fluid processing device (10), and wherein said hole is opened by said fluid processing body (12) in said fluid introduction position.